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PATENT SPECIFICATION

NO DRAWINGS

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COMPLETE SPECIFICATION

Hair-dyeing Compositions

We, EXBASA, care of Mr. G. Martin, Corraterie 12, Geneva, Switzerland, a Swiss Limited Company, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention is concerned with improvements in or relating to compositions for dyeing living hair.

It is known that living hair can be dyed with liquid or paste-like hair-dying agents.

Liquid hair-dying agents have, amongst other things, the disadvantage that they run off the head, thereby rendering a good and simple dyeing of the hair impossible.

In order to overcome this disadvantage, dying pastes have been produced for dyeing living hair. However, they have the disadvantage that, prior to the commencement of the dyeing process. they have to be mixed with hydrogen peroxide and then applied to the hair by means of a brush. The hydrogen peroxide hereby acts as an oxidising agent for the colouring substance.

It is a disadvantage that these hair-dyeing pastes have to be mixed with hydrogen peroxide prior to their application. The mixing ought to be carried out thoroughly and in the shortest possible space of time, but this is not always possible. This results in different dyeing intensities. If the dye mixing takes place too early, there may well be colour losses, due to premature oxidation of the dye. Another disadvantage of such paste-like dyeing agents resides in the fact that the dyed hair cannot simply be rinsed but must be shampooed in order to remove the dyeing paste from the hair. The time required for the application of the paste-like dyes is very long and is considered to be disadvantageous by the person whose hair is to be treated.

The application of the paste-like hair dyes with a brush prevents an accurate measurement of the dyeing, the thickness of the layer to be applied being merely a matter of estimation, which naturally makes a level dyeing of the hair impossible.

It has also been proposed to rinse the hair with hair dyes which are soluble in water, using a spraying method. However, 90% of alcohol was necessary. The disadvantage of such a hair-dye rinse was that there was no resistance to subsequent washing of the hair, i.e. the dye was completely washed off the hair. It is necessary that a hair-dying withstands several washes.

The object of the present invention is to eliminate the disadvantages of the known hair-dyeing preparations.

It has been found, surprisingly, that hair-dyeing compositions can be used which are pressed out of a container by means of a propellant in the form of a viscous liquid or of a viscous foam and which contain up to about 20% by weight of a lower alcohol.

Thus, the present invention is concerned with a hair-dyeing composition for dyeing living hair, comprising a viscous acid or alkaline aqueous solution of at least one known oxidation dye, at least one lower alcohol miscible with water, in an amount of up to about 20% by weight of the total amount of the above constituents, and a known propellant which is liquifiable under slight pressure.

It is of interest to note that hair-dying agents of this new type are time-saving. The addition of hydrogen peroxide to the dyeing composition, which was hitherto necessary, is done away with, a pre-dyeing rinse with hydrogen peroxide being all that is required.

Hair-treating agents, such as cholesterol and lanolin, may be added to the hair-dying composition but agents such as cholesterol do not act here as emulsifiers.

The use of oxidation dyes and especially aromatic bases and their derivatives, such as amino-phenols and aromatic diamines and their derivatives, as well as nitrated products, for dyeing living hair is already known as

such but those compositions of the present type have so far not been described.

The alcohols which can be advantageously used are the lower aliphatic alcohols, especially ethanol and isopropanol, but *n*-propanol, *tert.*-butanol, *n*-butanol and isobutanol can also be used, whereby the solubilities have to be taken into account. The amount of alcohol is preferably between 5 and 20% by weight of the total mixture.

The propellants are preferably the fluoro-chloro-hydrocarbons known under the Registered Trade Mark "Freon". The compositions according to the present invention are filled into so-called "aerosol containers". However, it should be noted that these compositions do not come out from said containers in the form of a fog but as a viscous liquid or foam.

The following example is given for the purpose of illustrating the present invention, the parts being parts by weight:—

EXAMPLE.

	Parts
Ethanol 80%	20
Agar-agar	1.15
Cholesterol	0.01
Ammonia 25%	5
Sodium sulphite	2
Nitro-*p*-phenylene diamine sulphate	4.05
Sodium *p*-aminobenzoate	0.1
Water	add 100

7 parts of this mixture are mixed with about 3 parts of "Freon 12" as a propellant.

WHAT WE CLAIM IS:—

1. A hair-dyeing composition for dyeing living hair, comprising a viscous acid or alkaline aqueous solution of at least one known oxidation dye, at least one lower alcohol miscible with water, in an amount of up to about 20% by weight of the total amount of the above constituents, and a known propellant which is liquifiable under slight pressure.

2. Hair-dyeing composition according to Claim 1, wherein the dye is an aromatic diamine, an amino-phenol or a nitro derivative of said diamine or said amino-phenol.

3. Hair-dyeing composition according to Claim 1 or 2, wherein the alcohol is ethanol or isopropanol.

4. Hair-dyeing composition according to any of the preceding claims, wherein there is additionally present at least one known hair-treating agent, such as cholesterol or lanolin.

5. Hair-dyeing composition for dyeing living hair substantially as hereinbefore described and with reference to the specific example.

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